

What is claimed is:

1. A mixture formation means for a reformer of a fuel cell system or for a heater comprising:
 - a fuel feed means;
 - an air feed means; and
 - a mixture formation area,
wherein the fuel feed means includes a pressure impulse injection means and a fuel heating means for preheating the fuel before injection, and
wherein the mixture formation area includes a swirl chamber into which a nozzle connected to the pressure impulse injection device discharges.
2. The mixture formation means as claimed in claim 1, wherein the pressure impulse injection means includes a changeover valve and the fuel heating means is located in a fuel line located between the changeover valve and the nozzle.
3. The mixture formation means as claimed in claim 1, wherein the fuel heating means heats the fuel to the temperature at which the vapor pressure of the fuel is below a holding pressure of the pressure impulse injection means.
4. The mixture formation means as claimed in claim 1, wherein the air feed means includes an air heater.
5. The mixture formation means as claimed in claim 4, wherein the air heater heats the air to a temperature at which condensation of the fuel in the swirl chamber no longer occurs.
6. The mixture formation means as claimed in one of claim 1, wherein the air feed supplies air continuously.